

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER NO. R5-2006-\_\_\_\_

REQUIRING THE CITY OF TRACY  
TRACY WASTEWATER TREATMENT PLANT  
SAN JOAQUIN COUNTY  
TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER NO. R5-2006-\_\_\_\_  
(NPDES PERMIT NO. CA0079154)

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Water Board) finds that:

1. On \_\_\_\_\_, the Regional Water Board adopted Waste Discharge Requirements (WDR) Order No. R5-2006-\_\_\_\_, prescribing waste discharge requirements for the City of Tracy (hereafter Discharger) at the Tracy Wastewater Treatment Plant (hereafter Facility), San Joaquin County.

~~2. WDR Order No. R5-2006-\_\_\_\_, contains Receiving Water Limitations V.A.6.a., which reads as follows:~~

~~“V. Receiving Water Limitations~~

~~A. Surface Water Limitations~~

~~Receiving surface water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in the Old River:~~

~~6. Temperature.~~

~~a. The creation of a zone, defined by water temperatures of more than 1° F above natural receiving water temperature, which exceeds 25 percent of the cross-sectional area of the river channel at any point.”~~

- ~~3. Modeling by the Discharger indicates that the discharge cannot comply with Receiving Water Limitations V.A.6.a., which is a requirement of the State Water Resources Control Board’s Water Quality Control Plan for Control of Temperatures in Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan).~~

~~This Order includes a time schedule to evaluate and implement alternatives to comply with the Thermal Plan or to clearly demonstrate that an exception to the Thermal Plan will not cause adverse impacts to aquatic life.~~

4.3. WDR Order No. R5-2006-\_\_\_\_, contains Final Effluent Limitations IV.A.1.a., which reads, in part, as follows:

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Aluminum (total recoverable)	µg/L	77	--	125	--	--

5.4. WDR Order No. R5-2006-\_\_\_\_, contains Final Effluent Limitations IV.A.1.b, IV.A.1.c., and IV.A.1.d. For the parameters listed below, the concentration limitations remain the same for effluent limitations b, c, and d, but the mass loading limitations increase with increases in approved discharge rates. Final Effluent Limitations IV.A.1.b. reads, in part, as follows:

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Ammonia (as N)	mg/L	1.3	--	2.1	--	--
	lbs/day <sup>1</sup>	98	--	158	--	--
Nitrate (as N)	mg/L	10	--	--	--	--
	lbs/day <sup>1</sup>	750.6	--	--	--	--
Nitrite (as N)	mg/L	1	--	--	--	--
	lbs/day <sup>1</sup>	75.1	--	--	--	--

<sup>1</sup> Based on a design treatment capacity of 9 mgd"

6.5. WDR Order No. R5-2006-\_\_\_\_, contains Final Effluent Limitations IV.A.1.1., which states, *“Dissolved Oxygen (DO). The daily average effluent DO concentration shall not be less than 5.0 mg/L.”*

7.6. The effluent limitations specified in Order No. R5-2006-\_\_\_\_ for nitrate and nitrite are based on implementation of the Basin Plan narrative chemical constituents objective, the effluent limitations for dissolved oxygen are based on a Basin Plan site-specific water quality objective, and the effluent limitations for ammonia and aluminum are based on the Basin Plan’s narrative toxicity objective. These limitations are based on existing Basin Plan water quality objectives that were adopted prior to 25 September 1995. Effluent limitations for ammonia, aluminum, dissolved oxygen, nitrate, and nitrite are new limitations, which were not prescribed in previous Order No. 96-104, adopted by the Regional Water Board on 3 May 1996.

8.7. California Water Code (CWC) section 13300 states: *“Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements.”*

- 9.8. Federal regulations, 40 CFR Part 122.44 (d)(1)(i), require that NPDES permit effluent limitations must control all pollutants which are or may be discharged at a level which will cause or have the reasonable potential to cause or contribute to an in-stream excursion above any State water quality standard, including any narrative criteria for water quality. Beneficial uses, together with their corresponding water quality objectives or promulgated water quality criteria, can be defined per federal regulations as water quality standards.
- 10.9. In accordance with CWC section 13385(j)(3), the Regional Water Board finds that, based upon results of effluent monitoring and statistically projected effluent concentrations, the Discharger is not able to consistently comply with the new effluent limitations for ammonia, aluminum, nitrate, and nitrite. In addition, effluent data for dissolved oxygen is not available, therefore, consistent compliance with the new dissolved oxygen effluent limitations cannot be determined. These limitations are new requirements that become applicable to the Order after the effective date of adoption of the waste discharge requirements, and after 1 July 2000, for which new or modified control measures are necessary in order to comply with the limitation, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.
- 11.10. Immediate compliance with these new effluent limitations for ammonia, aluminum, dissolved oxygen, nitrate, and nitrite is not possible or practicable. The Clean Water Act and the California Water Code authorize time schedules for achieving compliance.
- 12.11. This Order provides time schedules for the Discharger to develop, submit, and implement methods of compliance, including completing a mixing zone analysis, utilize pollution prevention activities, or construct necessary treatment facilities to meet these new effluent limitations.
- 13.12. CWC section 13385(h) and (i) require the Regional Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. CWC section 13385(j) exempts certain violations from the mandatory minimum penalties. CWC section 13385(j)(3) exempts the discharge from mandatory minimum penalties “*where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300, if all the [specified] requirements are met.*”
- 14.13. Compliance with this Order exempts the Discharger from mandatory penalties for violations of effluent limitations for ammonia, aluminum, dissolved oxygen, nitrate, and nitrite only, in accordance with CWC section 13385(j)(3). CWC section 13385(j)(3) requires the Discharger to prepare and implement a pollution prevention plan pursuant to section 13263.3 of the California Water Code. Therefore, a pollution prevention plan will be necessary for aluminum in order to effectively reduce the effluent concentrations by source control measures. Ammonia, nitrate, and nitrite cannot be significantly reduced through source control measures in domestic wastewater, and dissolved oxygen is not a pollutant parameter. Therefore, pollution prevention plans for dissolved oxygen, ammonia, nitrate, and nitrite are not required by this Order.
- 15.14. Since the time schedules for completion of action necessary to bring the waste discharge into compliance exceed one year, this Order includes interim requirements and dates for their achievement. The time schedules do not exceed five years.

The compliance time schedules in this Order include interim performance-based effluent limitations for ammonia, aluminum, nitrate, and nitrite. The interim effluent limitations consist of a maximum daily effluent concentration derived using sample data provided by the Discharger. In developing the interim limitations, where there are ten sampling data points or more, sampling and laboratory variability is accounted for by establishing interim limits that are based on normally distributed data where 99.9% of the data points will lie within 3.3 standard deviations of the mean (*Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row*). Therefore, the interim limitations in this Order are established as the mean plus 3.3 standard deviations of the available data. Where actual sampling shows an exceedance of the proposed 3.3-standard deviation interim limit, the maximum detected concentration has been established as the interim limitation.

For nitrate and nitrite the current Facility performance is not appropriate for calculating interim limitations. The Discharger is in the process of upgrading the Facility to include nitrification/denitrification. During start up of the new process, the nitrate and nitrite in the effluent may change dramatically, due to possible incomplete nitrification/denitrification.

During the nitrification process, ammonia is converted to nitrite then nitrate. Therefore, interim performance-based limitations for nitrate and nitrite can be estimated using existing effluent ammonia, nitrate, and nitrite data. The projected maximum effluent concentrations (MEC) for ammonia, nitrate, and nitrite are 42 mg/L, 18 mg/L, and 2 mg/L, respectively. An interim limitation for nitrate plus nitrite of 62 mg/L has been developed based on the sum of these projected MECs.

Dissolved oxygen effluent data is not available to determine performance-based interim limitations, which makes it impracticable to develop an interim limitation. Therefore, this Order does not include an interim effluent limitation for dissolved oxygen.

~~16.15.~~ The Regional Water Board finds that the Discharger can undertake source control and treatment plant measures to maintain compliance with the interim limitations included in this Order. Interim limitations are established when compliance with the final effluent limitations cannot be achieved by the existing discharge. Discharge of constituents in concentrations in excess of the final effluent limitations, but in compliance with the interim effluent limitations, can significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-term basis. The interim limitations, however, establish an enforceable ceiling concentration until compliance with the effluent limitation can be achieved.

~~17.16.~~ On \_\_\_\_\_, in Sacramento, California, after due notice to the Discharger and all other affected persons, the Board conducted a public hearing at which evidence was received to consider a Time Schedule Order under CWC section 13300 to establish a time schedule to achieve compliance with waste discharge requirements.

~~18.17.~~ Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000, et seq.), in accordance with CWC section 15321 (a)(2), Title 14, of the California Code of Regulations.

19.18. Any person adversely affected by this action of the Board may petition the State Water Resources Control Board to review this action. The petition must be received by the State Water Resources Control Board, Office of the Chief Counsel, P.O. Box 100, Sacramento, CA 95812-0100, within 30 days of the date on which this action was taken. Copies of the law and regulations applicable to filing petitions will be provided on request.

**IT IS HEREBY ORDERED THAT:**

~~1. The Discharger shall comply with the following time schedule to ensure compliance with Receiving Water Limitations V.A.6.a., contained in WDR Order No. R5-2006-\_\_\_\_, as described in the above Findings:~~

**Task**

~~Submit Method of Compliance Workplan/schedule~~

~~Progress Report<sup>+</sup>~~

~~Full compliance~~

**Date Due**

~~1 January 2007~~

~~1 January, annually,  
after approval of  
work plan until final  
compliance~~

~~1 August 2011~~

~~<sup>+</sup> The progress reports shall detail what steps have been implemented towards achieving compliance with waste discharge requirements, including studies, construction progress, evaluation of measures implemented, and recommendations for additional measures as necessary to achieve full compliance by the final date.~~

2.1. The Discharger shall comply with the following time schedule to ensure compliance with the ammonia, nitrate, and nitrite effluent limitations contained in WDR Order No. R5-2006-\_\_\_\_ as described in the above Findings:

**Task**

Submit Method of Compliance Workplan/schedule

Progress Reports<sup>1</sup>

Full compliance with ammonia effluent limitations

**Date Due**

**1 October 2006**

**1 January, annually,  
after approval of  
work plan until final  
compliance**

**1 August 2008**

<sup>1</sup> The progress reports shall detail what steps have been implemented towards achieving compliance with waste discharge requirements, including studies, construction progress, evaluation of measures implemented, and recommendations for additional measures as necessary to achieve full compliance by the final date.

3.2. The Discharger shall comply with the following time schedule to ensure compliance with the aluminum and dissolved oxygen effluent limitations contained in WDR Order No. R5-2006-\_\_\_\_ as described in the above Findings:

<b><u>Task</u></b>	<b><u>Date Due</u></b>
Submit Method of Compliance Workplan/schedule	<b>1 October 2006</b>
Submit Pollution Prevention plan (PPP) <sup>1</sup> pursuant to CWC section 13263.3 for aluminum	<b>1 February 2007</b>
Progress Reports <sup>2</sup>	<b>1 January, annually,</b> after approval of work plan until final compliance
Full compliance with aluminum and dissolved oxygen effluent limitations	<b>1 August 2011</b>

<sup>1</sup> The PPP shall be prepared for aluminum and shall meet the requirements specified in CWC section 13263.3

<sup>2</sup> The progress reports shall detail what steps have been implemented towards achieving compliance with waste discharge requirements, including studies, construction progress, evaluation of measures implemented, and recommendations for additional measures as necessary to achieve full compliance by the final date.

4.3. The following interim effluent limitations shall be effective immediately. The interim effluent limitations for ammonia, nitrate, and nitrite shall be effective until **31 July 2008**, or upon compliance with Special Provisions VI.C.4.b. of Order No. R5-2006-\_\_\_\_, whichever is sooner. The interim effluent limitations for aluminum shall be effective until **31 July 2011**, or when the Discharger is able to come into compliance, whichever is sooner:

	<b>Maximum Daily Effluent Limitation</b>
Ammonia (as N) (mg/L)	<b>42</b>
Nitrate plus Nitrite (as N) (mg/L)	<b>62</b>
Aluminum (Total Recoverable) (µg/L)	<b>140</b>

5.4. For the compliance schedules required by this Order, the Discharger shall submit to the Regional Water Board on or before each compliance report due date, the specified document or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, and shall include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Water Board by letter when it returns to compliance with the time schedule.

6.5. If, in the opinion of the Executive Officer, the City of Tracy fails to comply with the provisions of this Order, the Executive Officer may apply to the Attorney General for judicial enforcement. If compliance with these effluent limitations is not achieved by the Full Compliance date, the discharge would not be exempt from the mandatory minimum penalties for violation of certain effluent limitations, and would be subject to issuance of a Cease and Desist Order in accordance with CWC section 13301.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on \_\_\_\_\_.

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PAMELA C CREEDON, Executive Officer